

Instructional Program Review

Program: Gunsmithing

Academic Year: [2022/2023](#)

Author(s): [J. Martin](#), [B. Bauer](#)

Accepted by Academic Senate: February 22, 2023

Accepted by Consultation Council: February 27, 2023

Accepted by Governing Board: March 14, 2023

Executive Summary

The executive summary should be a consolidation of key findings, program plans, and participants that contributed to the review

The Lassen College gunsmithing program is a unique program with the community college system. The program offers one and two week long classes that offer a wide variety of skill sets to the student and prospective gunsmith. The courses are hands on and for the beginner as well as the current gunsmith to learn or advance their skills. The Lassen college gunsmithing program is also endorsed by the NRA for the short term gunsmithing courses (summer classes). These classes include but not limited to law enforcement armorer classes, general gunsmithing, machine shop as well as a variety of other courses to offer the students.

The gunsmithing program has seen a decline in enrollment and was believed to be because of the online enrollment system that was being used. The gunsmithing program used an in person registration before 2013 and was successful but changed to the online system. In 2020 the gunsmithing program started using the in person registration again and was a success considering the Covid-19 pandemic. Since 2020 there has been an increase in enrollment and in the spring of 2022 a committee was formed of Lassen college employees and voted to revitalize the gunsmithing program. The revitalization was said to be because of low enrollment and change the format to give the students more time to complete an A.S. degree in two years.

The changes to the program are mandated by administration and the revitalization committee.

The revitalization and what is changing is as follows:

- The gunsmithing program did not take in students for the 2022-23 school year
- This break was to give the two full time employees' time to rewrite/update curriculum and finish out the current students in the current format.
- Change in format to change from the one/two week classes to semester length classes
- Reduce the hours the students are in gunsmithing classes so the student will have time to complete the general education requirement to obtain and Associate degree in a two year period
- Update curriculum to expand on some firearm platforms including inertia operated shotguns(Benelli),Glock auto pistols and AR 15 style rifles including the standard operating system(direct gas impingement) and piston operating system.
- Update facilities; replace the shipping containers that were unusable with one 40' container for storage of equipment that clutters the shop and is only used once a year. With the external storage area we can make our storage room into a spray area for spraying firearm finishes.
- Purchase new equipment for applying firearm finishes i.e. ovens and spray booth

The revitalization and changes are only being made to the two year degree/certificate program. There are no changes at this time to the NRA summer classes.

As this is being written the curriculum has been rewritten and has been reviewed by the advisory committee, curriculum committee, the North Far North committee and now is going to the chancellor's

office to be approved. As soon as we can get the chancellor's office approval we will start advertising for the updated program, to start taking in students for the 2023-24 school year starting in August 2023. With the updated program there will be some small adjustments that will need to be made to the program. These adjustments are not known at this time but will be reviewed in the next review cycle. The gunsmithing program will continue to improve and stay at the leading edge of the industry with input from our advisory committee. The facilities director is looking at moving the gunsmithing department in the next 5 years. This move will be to facilitate the student services being in one location. John Martin and Buck Bauer, both full time faculty for the Lassen College gunsmithing program have contributed to this document.

SECTION 1: ACADEMIC PLANNING

Program Overview, Objectives, and Student Learning Outcomes

- Describe the program (types of degrees offered, jobs/industries/transfer pathways associated with the program, faculty members in program)

The mission of the Lassen Community College Gunsmithing Program is as follows:

- Provide a comprehensive series of courses to enable the student to develop necessary industry skills and earn an A.S. Degree.
- Provide specific vocational training in specific Gunsmithing subjects to facilitate entry-level employment and develop job skills to advance in current career.

The objective of the Gunsmithing program is as follows:

- Identify industry standards and needs and provide individuals with opportunities to advance within the industry through vocational training with an A.S. Degree or Certificate from Lassen Community College.

The goals of the Gunsmithing Program are as follows:

- Treat each student with respect to encourage each student to establish and reach his/her goals and objectives within the field of Gunsmithing.
- Expand the use of industry technology in both degree and certificate courses.
- With the participation of an active Advisory Committee, review and improve the Program curriculum every two years.

- Describe and evaluate the program objectives against the LCC strategic plan, specifically the mission statement and strategic goals

The objective of the Gunsmithing program is as follows:

- Identify industry standards and needs and provide individuals with opportunities to advance within the industry through vocational training with an A.S. Degree or Certificate from Lassen Community College.

The following are approved Student Learning Outcomes for the Degrees and Certificates offered in the Gunsmithing program;

- **Associate in Science Degree Firearms Repair**
 1. Diagnose a specific firearm malfunction, execute the appropriate corrective step and verify the problem has been resolved.
 2. Perform firearms repair and maintenance procedures on the large variety of firearms common to retail Gunsmithing operation and do them legally under state and federal law.
- **Certificate of Achievement Gunsmith Machinist and Metal Finishing**

1. Design and machine firearm parts and fixtures using the appropriate tools and techniques.
 2. Apply the appropriate polishing technique and finish to metal firearms parts.
- **Certificate of Achievement Firearms Repair**
 1. Diagnose specific firearm malfunctions, execute the appropriate corrective step and verify the problem has been resolved.
 2. Perform appropriate custom alterations and modifications to specified firearm platforms
- Evaluate any changes in the program since last review. Include summary of Annual Updates completed since last review. Regular program assessment will drive program improvements.

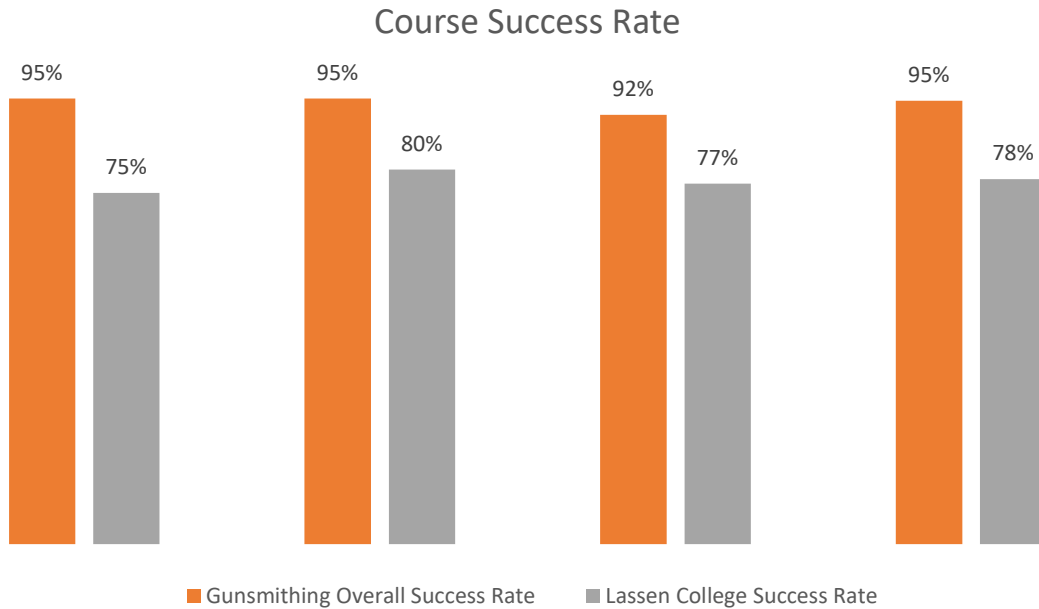
The Lassen Community College gunsmithing program is currently in the revitalizing process. With that we have paused taking in students for the 2022-2023 school year and finishing out the current students that are in the program. This pause is to give current fulltime staff to rewrite/update curriculum and update facilities.

- The curriculum changes include changing the format of the classes from one-week long blocks to semester length courses,
- New firearm platforms such as inertia operated shotguns (Benelli), Striker fired auto pistols (Glock) and AR-15 style rifles.
- The curriculum will also include some CNC (computer numerical control) programing as well as machine use.
- The facilities update includes adding storage next to the machine shop and changing the storage room into a spray booth.
- Listed is some of the differences we will have with the updated program
 - The current contact hours per week; 40
 - Proposed contact hours per week; 27
 - Current enrollment per year; 704
 - Proposed enrollment per year; 440

As this is written, we have currently completed the curriculum changes and waiting for them to be approved by the chancellor so that we can start advertising for the updated program. The gunsmithing program is also waiting for the facilities updates to be completed. The new equipment is ordered but has not arrived at this time.

Student Achievement and Learning Outcomes

Trends and Patterns in Student Achievement

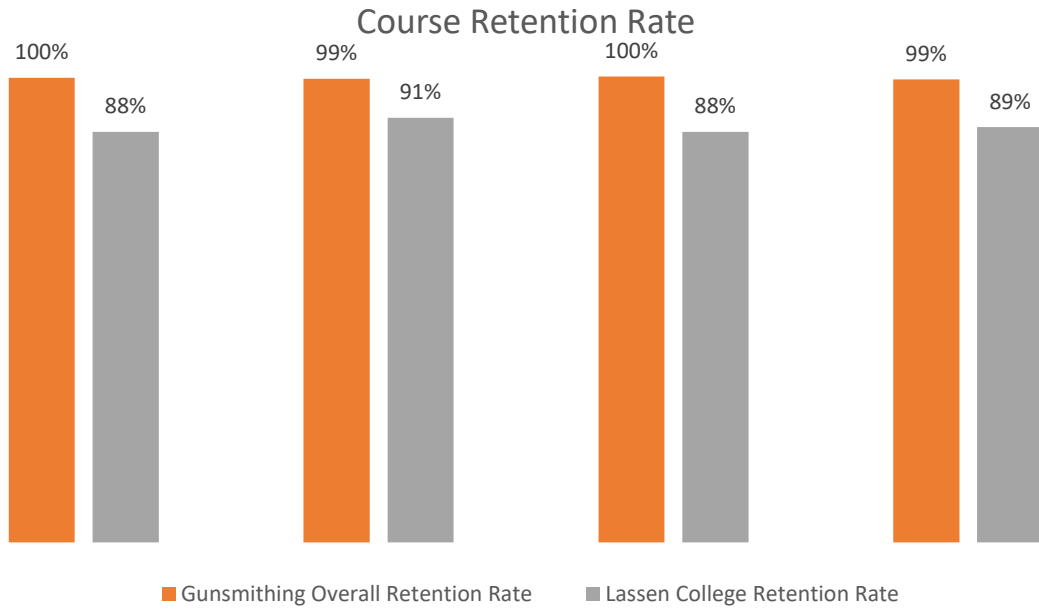


Course Success Rate	2018-19	2019-20	2020-21	2021-22
Program-Level				
Gunsmithing Overall Success Rate	95%	95%	92%	95%
Lassen College Success Rate	75%	80%	77%	78%
Course-Level				
GSS 112	95%	70%	-	83%
GSS 114	100%	-	-	100%
GSS 117	100%	100%	-	100%
GSS 119	100%	100%	-	100%
GSS 134	100%	-	-	100%
GSS 135	-	100%	-	100%
GSS 147	100%	-	-	-
GSS 49	60%	0%	-	-
GSS 50.01	92%	63%	90%	100%
GSS 50.03	100%	100%	100%	90%
GSS 51.01	100%	-	88%	100%
GSS 51.03	-	-	-	100%
GSS 51.05	100%	-	75%	100%
GSS 51.06	100%	-	94%	100%
GSS 52.01	100%	100%	100%	100%
GSS 52.02	93%	100%	100%	100%
GSS 52.03	100%	100%	100%	100%
GSS 52.04	100%	50%	89%	100%
GSS 52.05	100%	100%	100%	100%
GSS 52.06	100%	100%	100%	25%
GSS 52B	100%	-	-	-
GSS 52BR	100%	-	-	-

GSS 54.05	100%	100%	100%	100%
GSS 55.04	100%	-	82%	90%
GSS 56.01	100%	75%	100%	100%
GSS 56.03	100%	100%	100%	100%
GSS 56.04	100%	100%	100%	100%
GSS 57.01	100%	100%	63%	100%
GSS 57.02	100%	100%	100%	100%
GSS 57.03	100%	100%	100%	100%
GSS 57.06	100%	100%	100%	100%
GSS 57.08	71%	38%	44%	45%
GSS 57.15	100%	100%	75%	100%
GSS 58.02	100%	-	88%	90%
GSS 59.02	100%	100%	100%	100%
GSS 59.03	100%	100%	100%	100%
GSS 59.04	100%	88%	100%	100%
GSS 59.05	87%	100%	100%	100%
GSS 59.07	86%	100%	86%	100%
GSS 59.09	100%	100%	100%	100%
GSS 60.01	86%	100%	100%	86%
GSS 60.02	86%	100%	100%	71%
GSS 60.04	100%	100%	100%	100%
GSS 61.01	83%	100%	100%	86%
GSS 61.02	100%	100%	100%	100%
GSS 61.03	93%	100%	100%	100%
GSS 62.03	92%	83%	43%	86%
GSS 62.04	100%	100%	100%	-
GSS 63.01	100%	-	95%	100%
GSS 63.02	100%	-	95%	86%
GSS 63.03	100%	-	94%	100%
GSS 63.05	100%	100%	100%	83%
GSS 64.01	85%	-	80%	78%
GSS 66.01	92%	100%	71%	86%
GSS 66.02	80%	100%	100%	100%
GSS 66.03	93%	83%	71%	100%
GSS 67.01	86%	100%	100%	100%
GSS 68.01	87%	100%	100%	86%
GSS 68.02	100%	100%	100%	100%
GSS 68.03	75%	92%	100%	86%
GSS 69.01	92%	100%	86%	83%
GSS 69.02	100%	100%	71%	86%
GSS 69.03	100%	92%	71%	86%
GSS 69.04	100%	-	100%	-
GSS 70	-	78%	-	100%
GSS 70.01	100%	100%	100%	100%
GSS 70.02	100%	100%	100%	100%
GSS 71.01	92%	100%	71%	83%
GSS 71.02	85%	92%	71%	83%
GSS 71.03	92%	92%	57%	86%

GSS 71.04	100%	-	100%	100%
GSS 72.01	100%	100%	-	100%
GSS 73.02	81%	100%	100%	100%
GSS 75.02	100%	-	100%	100%
GSS 77	-	-	-	100%
GSS 79	-	100%	-	-
GSS 82	100%	100%	-	86%
GSS 83	-	-	-	100%
GSS 87	100%	77%	-	100%
GSS 88	100%	-	-	100%
GSS 89	100%	100%	-	100%
GSS 93	-	-	-	100%
GSS 95	100%	100%	-	100%
GSS 98.03	100%	-	-	-
GSS 98.05	-	100%	-	-
GSS 98.06	-	-	-	100%
GSS 98.08	-	93%	-	88%
GSS 98.09	100%	-	-	-
GSS 98.12	-	-	-	100%
GSS 98.21	89%	100%	100%	100%
GSS 98.22	96%	100%	-	100%
GSS 98.23	100%	100%	100%	100%
GSS 98.24	88%	1	1	1
Modality				
Correspondence	-	-	-	-
Face-to-Face	95%	95%	92%	95%
Online	-	-	-	-
Hybrid	-	-	-	-

Success Rate by Student Demographic	2018-19	2019-20	2020-21	2021-22
Program-Level				
Gunsmithing Overall Success Rate	95%	95%	92%	95%
Lassen College Success Rate	75%	80%	77%	78%
Gender				
Female	100%	100%	-	100%
Male	95%	95%	92%	95%
Unreported	100%	100%	-	100%
Ethnicity-Race-Ancestry				
American Indian or AK Native	78%	100%	100%	92%
Asian	70%	100%	-	100%
Black or African American	100%	100%	-	-
Filipino	-	100%	-	100%
Hispanic or Latino	99%	92%	89%	100%
Pacific Islander	-	100%	-	-
White	96%	96%	90%	92%
Other	-	-	-	-
Unreported	-	94%	98%	99%
Age Group				
17 and Under	-	100%	-	-
18 to 24	89%	94%	92%	94%
25 to 49	99%	96%	92%	94%
50 and Over	95%	96%	91%	99%



Retention Rate	2018-19	2019-20	2020-21	2021-22
Program-Level				
Gunsmithing Overall Retention Rate	100%	99%	100%	99%
Lassen College Retention Rate	88%	91%	88%	89%
Course-Level				
GSS 112	95%	70%	-	83%
GSS 114	100%	-	-	100%
GSS 117	100%	100%	-	100%
GSS 119	100%	100%	-	100%
GSS 134	100%	-	-	100%
GSS 135	-	100%	-	100%
GSS 147	100%	-	-	-
GSS 49	100%	100%	-	-
GSS 50.01	100%	100%	100%	100%
GSS 50.03	100%	100%	100%	100%
GSS 51.01	100%	-	100%	100%
GSS 51.03	-	-	-	100%
GSS 51.05	100%	-	94%	100%
GSS 51.06	100%	-	100%	100%
GSS 52.01	100%	100%	100%	100%
GSS 52.02	93%	100%	100%	100%
GSS 52.03	100%	100%	100%	100%
GSS 52.04	100%	100%	100%	100%
GSS 52.05	100%	100%	100%	100%
GSS 52.06	100%	100%	100%	100%
GSS 52B	100%	-	-	-
GSS 52BR	100%	-	-	-
GSS 54.05	100%	100%	100%	100%
GSS 55.04	100%	-	100%	100%

GSS 56.01	100%	100%	100%	100%
GSS 56.03	100%	100%	100%	100%
GSS 56.04	100%	100%	100%	100%
GSS 57.01	100%	100%	100%	100%
GSS 57.02	100%	100%	100%	100%
GSS 57.03	100%	100%	100%	100%
GSS 57.06	100%	100%	100%	100%
GSS 57.08	100%	100%	100%	100%
GSS 57.15	100%	100%	100%	100%
GSS 58.02	100%	-	100%	100%
GSS 59.02	100%	100%	100%	100%
GSS 59.03	100%	100%	100%	100%
GSS 59.04	100%	100%	100%	100%
GSS 59.05	100%	100%	100%	100%
GSS 59.07	100%	100%	100%	100%
GSS 59.09	100%	100%	100%	100%
GSS 60.01	100%	100%	100%	86%
GSS 60.02	100%	100%	100%	86%
GSS 60.04	100%	100%	100%	100%
GSS 61.01	100%	100%	100%	100%
GSS 61.02	100%	100%	100%	100%
GSS 61.03	100%	100%	100%	100%
GSS 62.03	100%	100%	100%	100%
GSS 62.04	100%	100%	100%	-
GSS 63.01	100%	-	100%	100%
GSS 63.02	100%	-	100%	100%
GSS 63.03	100%	-	100%	100%
GSS 63.05	100%	100%	100%	100%
GSS 64.01	100%	-	100%	100%
GSS 66.01	100%	100%	100%	100%
GSS 66.02	100%	100%	100%	100%
GSS 66.03	100%	100%	100%	100%
GSS 67.01	100%	100%	100%	100%
GSS 68.01	100%	100%	100%	100%
GSS 68.02	100%	100%	100%	100%
GSS 68.03	94%	100%	100%	100%
GSS 69.01	100%	100%	100%	100%
GSS 69.02	100%	100%	100%	100%
GSS 69.03	100%	100%	100%	100%
GSS 69.04	100%	-	100%	-
GSS 70	-	100%	-	100%
GSS 70.01	100%	100%	100%	100%
GSS 70.02	100%	100%	100%	100%
GSS 71.01	100%	100%	100%	100%
GSS 71.02	92%	100%	100%	100%
GSS 71.03	100%	100%	100%	100%
GSS 71.04	100%	-	100%	100%
GSS 72.01	100%	100%	-	100%

GSS 73.02	100%	100%	100%	100%
GSS 75.02	100%	-	100%	100%
GSS 77	-	-	-	100%
GSS 79	-	100%	-	-
GSS 82	100%	100%	-	86%
GSS 83	-	-	-	100%
GSS 87	100%	100%	-	100%
GSS 88	100%	-	-	100%
GSS 89	100%	100%	-	100%
GSS 93	-	-	-	100%
GSS 95	100%	100%	-	100%
GSS 98.03	100%	-	-	-
GSS 98.05	-	100%	-	-
GSS 98.06	-	-	-	100%
GSS 98.08	-	93%	-	88%
GSS 98.09	100%	-	-	-
GSS 98.12	-	-	-	100%
GSS 98.21	100%	100%	100%	100%
GSS 98.22	100%	100%	-	100%
GSS 98.23	100%	100%	100%	100%
GSS 98.24	100%	100%	100%	100%
Modality				
Correspondence	-	-	-	-
Face-to-Face	100%	99%	100%	99%
Online	-	-	-	-
Hybrid	-	-	-	-

Degree and Certificates	2018-19	2019-20	2020-21	2021-22
Gunsmithing Degrees Awarded	10	6	10	4
Lassen College Degrees Awarded	310	260	338	236
Gunsmithing Certificates Awarded	28	4	13	4
Lassen College Certificates Awarded	156	128	161	72
Degree or Certificate Program				
AS Firearms Repair	5	3	5	2
AS General Gunsmithing	5	3	5	2
Cert. of Achievement Firearms Repair	14	2	11	2
Certificate of Achievement General Gunsmithing	14	2	12	2

Achievement

Based on your review of the data trends above (e.g., course success, retention, awards) please provide an analysis of achievement gaps and accomplishments in the program.

The data provided shows that the Lassen Community College Gunsmithing program had great success and retention rates. The rates were well above the average for the college as a whole. Due to the gunsmithing program revitalizing and changing the program format the success and retention rate is suspected to decline. The success and retention rates were much lower when the program was in the semester format and we are changing back to that format. The current format focuses on one subject or firearm platform and is completed in one week there is no other subjects in that time period. The new format will give the student several lectures on different subjects/firearm platforms in one day and can lead the student to some confusion and combining of the subjects. The instructor will do extensive demonstrations and tutoring in the lab to try to mitigate these issues.

Equity

Based on your review of the data trends above (e.g., course success, retention) please provide a narrative to outline opportunities to address any equity gaps.

There are no equity gaps at this time. The Gunsmithing program is under revitalization and we will have to wait until the next review cycle to see how the updates are working out.

Student Learning Outcomes

SLO assessment is important to maintain and improve an effective learning experience for LCC students. Evaluating SLO results regularly is helpful for evaluating student learning and identifying emerging program needs. There is a link between SLO assessment results, SLO improvement plans and review of curriculum and/or budget requests. Regular program assessment will drive program improvement. These records are maintained in the online Data Management and Visualization tool (TABLEAU) and are available for review by faculty at any time through its self-updating, interactive dashboards, and reports. Feedback and narrative from the Share Point tool will be included in the reports.

*By contract, faculty are required to prepare and submit an SLO Assessment Plan for each class within one week of the first-class meeting and implementation of the assessment method as indicated on the SLO Plan for each class. Submission of the (a) results of the assessment methods and (b) steps taken as result of the assessment within five (5) District business days after the last scheduled meeting of the class. Both submissions will be made in accordance with District tracking procedures (i.e., may be paper-based or electronic).

- Provide an analysis of findings of the assessments completed and recommendations being made in individual assessments.
 The Gunsmithing program is under revitalization. This will have to be reviewed at the next review cycle to see if the updates are an improvement.
- Consider the impact or influence of the assessment results at the program level.
 The results show the courses offered were very successful.
- Identify and evaluate the Program Student Learning Outcomes including the relationship between course, program and institutional student learning outcomes utilizing information provided by the Office of Institutional Effectiveness.
 The PSLOs show that the students are meeting the SLO and there is no improvement needed. The course format will change before the next review cycle and we will see if this stays the same.

Course Assessed	Recommendations for Improvement
GSS-112 Machine Shop For Gunsmiths	No improvement needed
GSS-114 Basic Rifle Barreling	No improvement needed
GSS-117 GTAW For Gunsmiths	No improvement needed
GSS-119 Advanced Rifle Barreling	No improvement needed
GSS-134 Caustic Bluing	No improvement needed
GSS-135 Parkerizing	No improvement needed
GSS-147 Assemble/Tung Gas Rif	No improvement needed
GSS-49 Gunsmithing Work Experience	See work experience IPR
GSS-50.01 Recoil Pad Install	No improvement needed
GSS-50.03 Open Sight Install	No improvement needed
GSS-51.01 Stock Inletting	No improvement needed
GSS-51.03 Stock Shaping	No improvement needed
GSS-51.05 Glass Bedding	No improvement needed
GSS-51.06 Wood Stock Finishing	No improvement needed

GSS-52.01 Gunsmith Machining 1	No improvement needed
GSS-52.02 Gunsmith Machining 2	No improvement needed
GSS-52.03 Gunsmith Machining 3	No improvement needed
GSS-52.04 Gunsmith Machining 4	No improvement needed
GSS-52.05 Gunsmith Machining 5	No improvement needed
GSS-52.06 Gunsmith Machining 6	No improvement needed
GSS-52B Firearms Training	No improvement needed
GSS-52BR Firearms Training Refresher	No improvement needed
GSS-54.05 Hard/Temp Steels	No improvement needed
GSS-55.04 Stock Refinish and Repair	No improvement needed
GSS-56.01 Headspace	No improvement needed
GSS-56.03 Bolt Action Barrel Fitting	No improvement needed
GSS-56.04 Barrel Contouring	No improvement needed
GSS-57.01 Bolt Action Breech	No improvement needed
GSS-57.02 Action Blueprinting	No improvement needed
GSS-57.03 Action and Bolt Modifications	No improvement needed
GSS-57.06 Truing Exterior of Action	No improvement needed
GSS-57.08 Bottom Metal Modifications	No improvement needed
GSS-57.15 Bolt Action Rifle Feeding	No improvement needed
GSS-58.02 Pres & Pil Bedding	No improvement needed
GSS-59.02 Metal Preparation	No improvement needed
GSS-59.03 Parkerizing	No improvement needed
GSS-59.04 Color Case Hardening	No improvement needed
GSS-59.05 Rust Bluing	No improvement needed
GSS-59.07 Niter Bluing and Heat Coloring	No improvement needed
GSS-59.09 Alternative Metal Finishes	No improvement needed
GSS-60.01 Dfr Recoil Auto Sg	No improvement needed
GSS-60.02 Dfr Gas Operated Auto Shotguns	No improvement needed
GSS-60.04 Dfr Pump Shotguns	No improvement needed
GSS-61.01 Dfr Single Action Revolvers	No improvement needed
GSS-61.02 Dfr Smith & Wesson Revolvers	No improvement needed
GSS-61.03 DFR Colt & Ruger Revolvers	No improvement needed
GSS-62.03 Misfire Correction	No improvement needed
GSS-62.04 Firing Pin Holes	No improvement needed
GSS-63.01 Single Triggers	No improvement needed
GSS-63.02 Ejectors	No improvement needed
GSS-63.03 Double Gun Locks	No improvement needed
GSS-63.05 Hinge Pin/Headspace	No improvement needed
GSS-64.01 Stock Fit and Bed	No improvement needed
GSS-66.01 Rifle Barrel Fit.	No improvement needed
GSS-66.02 Revolver Barrel Fit	No improvement needed
GSS-66.03 .22 Barrel Fitting	No improvement needed
GSS-67.01 Blowback Principle	No improvement needed
GSS-68.01 Dfr Locked Breech	No improvement needed
GSS-68.02 Locked Breech Dbl A	No improvement needed
GSS-68.03 Dfr Blowback Auto Pistols	No improvement needed
GSS-69.01 Dfr Auto Rifles	No improvement needed
GSS-69.02 Dfr Pump Rifles	No improvement needed

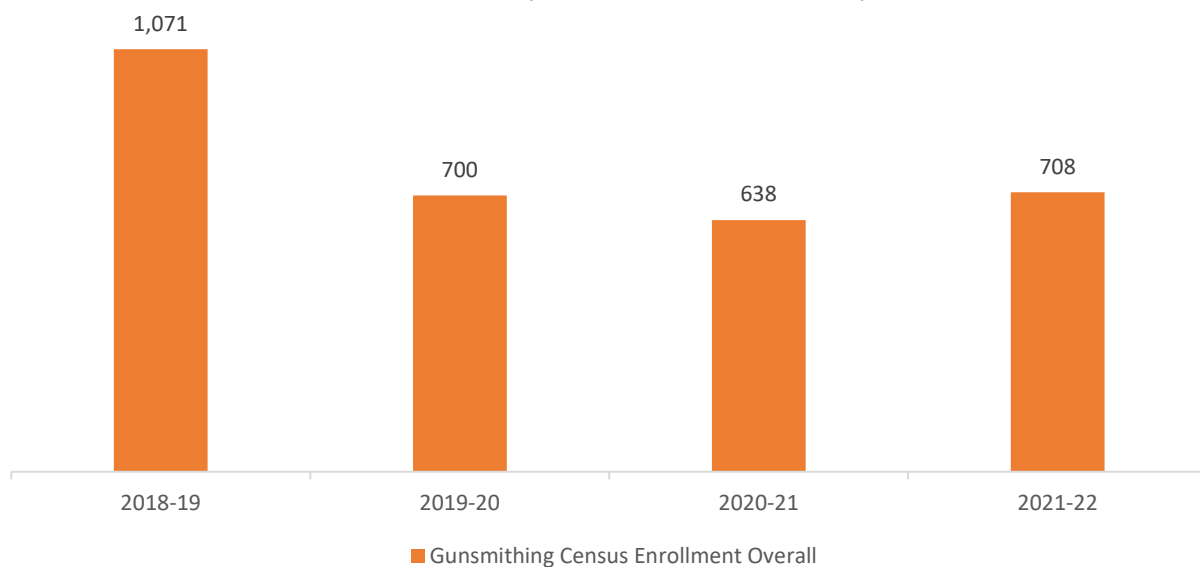
GSS-69.03 Dfr Lever Action Rifles	No improvement needed
GSS-69.04 Non-Bolt Action Feeding	No improvement needed
GSS-70 Checkering	No improvement needed
GSS-70.01 Dfa Triggers 1	No improvement needed
GSS-70.02 Dfa Triggers 2	No improvement needed
GSS-71.01 Dfr .22 Auto's	No improvement needed
GSS-71.02 Dfr Bolt Action .22's	No improvement needed
GSS-71.03 Dfr Pump and Lever	No improvement needed
GSS-71.04 Dfr Marlin Model 39	No improvement needed
GSS-72.01 Metallic Cartridge Reloading	No improvement needed
GSS-73.02 Spring Making	No improvement needed
GSS-75.02 Firearm Laws & Regulations	No improvement needed
GSS-77 Acc. M1-M1A For Comp	No improvement needed
GSS-79 Basic Cors Armorer	No improvement needed
GSS-82 General Gunsmithing	No improvement needed
GSS-83 General Gunsmithing-Advanced	No improvement needed
GSS-87 L.E.A.S./D & R Autopistol	No improvement needed
GSS-88 L.E.A.S./D & R Autopistol	No improvement needed
GSS-89 L.E.A.S./D & R Full Autos I	No improvement needed
GSS-93 L.E.A.S./Design & Repair	No improvement needed
GSS-95 Law Enforce Arms	No improvement needed
GSS-98.03 Cow Act Shoot Short	No improvement needed
GSS-98.05 Design, Func Rep Sw	No improvement needed
GSS-98.06 L.E.A.S./Dfr Long Guns	No improvement needed
GSS-98.08 Custom Built 1911	No improvement needed
GSS-98.09 Color Case Hardening	No improvement needed
GSS-98.12 Belts and Holsters	No improvement needed
GSS-98.21 Hand Guns Special Projects	No improvement needed
GSS-98.22 Dfr Long Guns Special Projects	No improvement needed
GSS-98.23 Machine Shop Special Projects	No improvement needed
GSS-98.24 Stockmaking Special Projects	No improvement needed

Program Student Learning Outcomes	Summarize Findings
PSLO 1	No improvement needed
PSLO 2	No improvement needed
PSLO 3	No improvement needed
PSLO 4	No improvement needed
PSLO 5	No improvement needed
Recommendations for Improvement	

Enrollment Management

Enrollment Management	2018-19	2019-20	2020-21	2021-22
Gunsmithing Census Enrollment Overall	1,071	700	638	708
Lassen College Census Enrollment	15,117	14,320	12,244	11,847
Gunsmithing Full-Time Equivalent Students (FTES)	84.6	56.9	48.2	57.9
Lassen College Full-Time Equivalent Students (FTES)	1,648	1,561	1,340	1,269
Gunsmithing Number of Sections	89	71	81	87
Lassen College Number of Sections	883	851	758	818
Gunsmithing Fill Rate	52%	43%	37%	34%
Lassen College Fill Rate	55%	54%	55%	51%
Gunsmithing Full-Time Equivalent Faculty (FTEF)	5.7	4.4	5.0	5.8
Lassen College Full-Time Equivalent Faculty (FTEF)	79.8	77.7	70.6	74.2
Gunsmithing FTES/FTEF	14.8	12.9	9.6	9.9
Lassen College FTES/FTEF	20.7	20.1	19	17.1

Enrollment (Seats Filled at Census)



Based on your review of the data trends above (e.g., enrollment, FTES, FTES/FTEF, fill rate) please provide an analysis of efficiency gaps and accomplishments.

Based on the data provided, the gunsmithing program has been operating about half capacity and the program has seen a decrease in enrollment mainly due to Covid-19 pandemic. We can see that since the pandemic the enrollment numbers are on the rise. The data listed includes the NRA summer courses and we have had a decline in enrollment in that program due to Covid-19 as well as the lack of advertising. The data listed does not capture all enrollments the gunsmithing program brings in i.e. the welding courses are not listed in the data for the gunsmithing program. The welding courses are specific to the gunsmithing program and only students enrolled into the gunsmithing program are allowed to take these courses. The degree/certificate program is under revitalization to improve enrolment. With the changes to the format to the gunsmithing program the enrollment number will be substantially less. Currently one student will be enrolled in an average of 18 courses per semester and counted for each

course. With the new format one student will be enrolled in 5 courses per semester and counted for each course. With full classes the enrollments compared as follows;

- Current program; 22 students X 18 classes per semester = 396 enrollments per class per semester
- Proposed program; 22 students X 5 classes per semester = 110 enrollments per class per semester

These changes will also show a decrease in FTES the program will generate. With the decrease in enrollments and decrease in contact hours this in turn decreases FTES the program can earn. The current program vs. proposed program FTES generation per semester,

Current program with 22 students enrolled = 14,080 contact hours = 26.8 FTES

Proposed program with 22 students enrolled = 9,504 contact hours = 18.1 FTES

The gunsmithing program staff will work diligently to fill the classes through advertising and promoting the program. These changes are mandated by the administration and the revitalization committee. The decrease in contact hours as well as enrollments are to facilitate the students having more time to complete the general education requirements for the degree.

Curriculum

Degrees and/or Certificates

Degree or Certificate Title	Award Type (AA, AS, AAT, AST, etc.)	Units	Term of Last Revision
Associate in Science Degree in Firearms Repair	A.S.	60	2021
Associate in Science Degree in General Gunsmithing	A.S.	60	2021
Certificate of Achievement in Firearms Repair	COA	16	2021
Certificate of Achievement in General Gunsmithing	COA	16	2021
Certificate of Accomplishment in Gunsmith Machinist and Metal Finishing	COA	16	2021
Certificate of Accomplishment in Long Guns	COA	16	2021
Certificate of Accomplishment in Pistolsmith	COA	16	2021
Certificate of Accomplishment in Riflesmith	COA	16	2021

Provide a narrative of revisions made.

The program is under revitalization at this time. The updated program will offer

- A.S. firearms repair
- Certificate of Achievement Gunsmith machinist and metal finisher
- Certificate of Achievement firearms repair

The revitalization and changes to the program are as follows

- The gunsmithing program did not take in students for the 2022-23 school year
This break was to give the two full time employees' time to rewrite/update curriculum and finish out the current students in the current format.
- Change in format to change from the one/two week classes to semester length classes
- Reduce the hours the students are in gunsmithing classes so the student will have time to complete the general education requirement for obtain and Associate degree in a two year period
- Update curriculum to expand on some firearm platforms including inertia operated shotguns(Benelli),Glock auto pistols and AR 15 style rifles including the standard operating system(direct gas impingement) and piston operating system.

The revitalization and changes are only being made to the two year degree/certificate program. There are no changes at this time to the NRA summer classes.

Courses

Summarize curriculum revisions, new course adoptions, and/or course deletions since the last program review. Describe the program accomplishments and/or changes (e.g., major revisions, additions, etc.). All courses need to be submitted to the Curriculum Committee for revision at least once every five years.

Whether changes to a course outline are necessary or not, a Revision to Existing Course Form for each course must be completed and submitted to the Curriculum/Academic Standards Committee for action.

If all the courses in the certificate or degree are reviewed at one time, a single Program revision form can be used. If there are changes made to a course, the changes must be noted on the revision form. When reviewing a single course and changes are necessary, indicate the revisions on the form. Where no changes are necessary, simply indicate on the Revision Form that “the course has been reviewed as part of the program review and no changes are necessary.” All program certificates, degrees, PSLO maps, and SLO maps are also required to be reviewed and updated if necessary. PSLO maps require a program revision form and course SLO maps require a course revision form. If all maps are reviewed at the same time, a single program revision form can be used. Advising plans also need to be reviewed and updated. A program revision form is used to review and update the advising plan if necessary. Revision forms will be retained in the Instructional Office with the Curriculum agenda packets.

Following the Curriculum/Academic Standards Committee action on all submitted Revision to Existing Course Forms, a summary Instructional Program Curriculum Review Form will be completed by the Curriculum/Academic Standards Subcommittee Chair and given to the program faculty for inclusion in the program review.

The signed Instructional Program Curriculum Review Form is to be included with your completed program review documents for all certificates and degrees.

Course	Last Offered	Term of Last Revision
GSS-112 Machine Shop For Gunsmiths	2022SU	2021
GSS-114 Basic Rifle Barreling	2022SU	2021
GSS-117 GTAW For Gunsmiths	2022SU	2021
GSS-119 Advanced Rifle Barreling	2022SU	2021
GSS-134 Caustic Bluing	2022SU	2021
GSS-135 Parkerizing	2022SU	2021
GSS-147 Assemble/Tung Gas Rif	2019SU	2021
GSS-49 Gunsmithing Work Experience	2022SU	2021
GSS-50.01 Recoil Pad Install	2021FA	2021
GSS-50.03 Open Sight Install	2021FA	2021
GSS-51.01 Stock Inletting	2022SP	2021
GSS-51.03 Stock Shaping	2022SP	2021
GSS-51.05 Glass Bedding	2022SP	2021
GSS-51.06 Wood Stock Finishing	2022SP	2021
GSS-52.01 Gunsmith Machining I	2021FA	2021
GSS-52.02 Gunsmith Machining 2	2021FA	2021
GSS-52.03 Gunsmith Machining 3	2021FA	2021
GSS-52.04 Gunsmith Machining 4	2021FA	2021
GSS-52.05 Gunsmith Machining 5	2021FA	2021
GSS-52.06 Gunsmith Machining 6	2021FA	2021
GSS-52B Firearms Training	N/A	2021
GSS-52BR Firearms Training Refresher	N/A	2021

GSS-54.05 Hard/Temp Steels	2021FA	2021
GSS-55.04 Stock Refinish and Repair	2022SP	2021
GSS-56.01 Headspace	2022SP	2021
GSS-56.03 Bolt Action Barrel Fitting	2022SP	2021
GSS-56.04 Barrel Contouring	2022SP	2021
GSS-57.01 Bolt Action Breech	2022SP	2021
GSS-57.02 Action Blueprinting	2022SP	2021
GSS-57.03 Action and Bolt Modifications	2022SP	2021
GSS-57.06 Truing Exterior of Action	2022SP	2021
GSS-57.08 Bottom Metal Modifications	2022SP	2021
GSS-57.15 Bolt Action Rifle Feeding	2022SP	2021
GSS-58.02 Pres & Pil Bedding	2022SP	2021
GSS-59.02 Metal Preparation	2021FA	2021
GSS-59.03 Parkerizing	2021FA	2021
GSS-59.04 Color Case Hardening	2021FA	2021
GSS-59.05 Rust Bluing	2022FA	2021
GSS-59.07 Niter Bluing and Heat Coloring	2022FA	2021
GSS-59.09 Alternative Metal Finishes	2021FA	2021
GSS-60.01 Dfr Recoil Auto Sg	2021FA	2021
GSS-60.02 Dfr Gas Operated Auto Shotguns	2021FA	2021
GSS-60.04 Dfr Pump Shotguns	2021FA	2021
GSS-61.01 Dfr Single Action Revolvers	2021FA	2021
GSS-61.02 Dfr Smith & Wesson Revolvers	2021FA	2021
GSS-61.03 DFR Colt & Ruger Revolvers	2021FA	2021
GSS-62.03 Misfire Correction	2022SP	2021
GSS-62.04 Firing Pin Holes	2021SP	2021
GSS-63.01 Single Triggers	2022SP	2021
GSS-63.02 Ejectors	2022SP	2021
GSS-63.03 Double Gun Locks	2022SP	2021
GSS-63.05 Hinge Pin/Headspace	2022SP	2021
GSS-64.01 Stock Fit and Bed	2022SP	2021
GSS-66.01 Rifle Barrel Fit.	2022SP	2021
GSS-66.02 Revolver Barrel Fit	2021FA	2021
GSS-66.03 .22 Barrel Fitting	2022SP	2021
GSS-67.01 Blowback Principle	2021FA	2021
GSS-68.01 Dfr Locked Breech	2021FA	2021
GSS-68.02 Locked Breech Dbl A	2021FA	2021
GSS-68.03 Dfr Blowback Auto Pistols	2021FA	2021
GSS-69.01 Dfr Auto Rifles	2022SP	2021
GSS-69.02 Dfr Pump Rifles	2022SP	2021
GSS-69.03 Dfr Lever Action Rifles	2022SP	2021
GSS-69.04 Non-Bolt Action Feeding	2021SP	2021
GSS-70 Checkering	2021SU	2021
GSS-70.01 Dfa Triggers 1	2021FA	2021
GSS-70.02 Dfa Triggers 2	2021FA	2021
GSS-71.01 Dfr .22 Auto's	2022SP	2021
GSS-71.02 Dfr Bolt Action .22's	2022SP	2021
GSS-71.03 Dfr Pump and Lever	2022SP	2021

GSS-71.04 Dfr Marlin Model 39	2022SP	2021
GSS-72.01 Metallic Cartridge Reloading	2022SP	2021
GSS-73.02 Spring Making	2022FA	2021
GSS-75.02 Firearm Laws & Regulations	2022SP	2021
GSS-77 Acc M1-M1A For Comp	2022SU	2021
GSS-79 Basic Cors Armorer	2022SU	2021
GSS-82 General Gunsmithing	2022SU	2021
GSS-83 General Gunsmithing-Advanced	2021SU	2021
GSS-87 L.E.A.S./D & R Autopistol	2022SU	2021
GSS-88 L.E.A.S./D & R Autopistol	N/A	2021
GSS-89 L.E.A.S./D & R Full Autos I	2022SU	2021
GSS-93 L.E.A.S./Design & Repair	2022SU	2021
GSS-95 Law Enforce Arms	2022SU	2021
GSS-98.03 Cow Act Shoot Short	N/A	2021
GSS-98.05 Design, Func Rep Sw	N/A	2021
GSS-98.06 L.E.A.S./Dfr Long Guns	2021SU	2021
GSS-98.08 Custom Built 1911	2022SU	2021
GSS-98.09 Color Case Hardening	2021SU	2021
GSS-98.12 Belts and Holsters	2022SU	2021
GSS-98.21 Hand Guns Special Projects	2022SP	2021
GSS-98.22 Dfr Long Guns Special Projects	2022SP	2021
GSS-98.23 Machine Shop Special Projects	2022SP	2021
GSS-98.24 Stockmaking Special Projects	2022SP	2021

Provide a narrative of revisions made.

The program is in revitalization at this time. The changes are as follows:

- The gunsmithing program did not take in students for the 2022-23 school year
- This break was to give the two full time employees' time to rewrite/update curriculum and finish out the current students in the current format.
- Change in format to change from the one/two week classes to semester length classes
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The revitalization and changes are only being made to the two year degree/certificate program. There are no changes at this time to the NRA summer classes.

Articulation/Integration of Curriculum

- Attach a tabular comparison of Lassen Community College courses articulating with UC and CSU, Indicating courses with approved C-ID designations as applicable (Obtain copies of Articulation Agreements from the Transfer Center / Articulation Officer)

- Provide a narrative reviewing the Lassen Community College courses and courses at four-year institutions for course alignment. (e.g., two courses at Lassen needed to articulate with one course at UC) and the unit requirements for Lassen Community College courses as compared to four-year institutions.

Lassen Community College Gunsmithing program is a unique program that is the only campus based Gunsmithing School that offers Design, Function and Repair classes in America. Our classes do not transfer to the UC or CSU level because none of the four-year institutions offer a gunsmithing program.

External Compliance

Provide a summary of any compliance regulations (e.g., accreditation, accessibility), actions taken, and gaps identified.

The gunsmithing program is currently next to the child day care and the student services office. The Child Day care is leased to an outside agency and with the large amount of traffic in the area is a concern. At this time the Gunsmithing program is in compliance with federal, state and local laws. If the laws are to change in the future the Gunsmithing program will not be able to operate at its current location. The LCC facilities director is currently looking into another space for the gunsmithing program. The gunsmithing advisory committee has not given any input on this issue at this time. This will be brought to their attention at the next meeting. The facilities director looking at moving the gunsmithing program in the next 5 years. This move is to facilitate student services being in one location. This proposed move would move us away from the child day care and alleviate most of these issues.

External Analysis: Job Market Assessment

Provide a summary of Industry Advisory Board suggestions and market data. The market data will be populated for Career Technical Education programs only

The advisory committee minutes are available in the office of instruction. At this time there has been not many recommendations from our advisory board due to they have had a lot of information to review and vote on with the program going through revitalization.

Program Planning and Communication Strategies

Describe the communication methods and interaction strategies used by your program faculty and administrators to discuss program-level planning, curriculum, SLOs, PSLOs, equity, student achievement, and institutional performance data.

The communication that has happened between program faculty and administration is by zoom and in person. The program planning and strategies has been discussed and plans have been made, during the revitalization process.

Academic Planning Analysis Summary

Summarize the key findings from the program analysis and outline opportunities for change.

The gunsmithing program is being revitalized at this time there is nothing to analyzed and we are making

changes to update the program.

Section 2: Human Resource Planning

Workload and Staffing Assessment

Year	F/T Faculty	P/T Faculty
Previous Year	2	7
Current Year	2	7
Next 2 Years	2	7

Provide a narrative that describes the program's faculty staffing trends and develop a projection for the two years. Discuss the extent to which your current faculty staffing structure meets or does not meet your program's needs and/or initiatives. Please describe what strategies will be used to diversify your staffing (e.g., education, expertise/skillsets, areas of interest, demographics).

The Number of full and part time faculty is steady. With full time faculty working at max capacity, it is difficult to expand the program. Lassen College is in desperate need of a director for the gunsmithing program to survive and grow. The gunsmithing program is the only program on campus that runs 12 months and does not have a director.

Lassen College has a signed contract with the NRA that states Lassen College will maintain a director or coordinator to oversee the NRA Gunsmithing program. At this time Jonathan Herring GS department ISS is the NRA coordinator.

Due to the work load of the current GSS staff full time and part time, the program is in need of a third full time instructor. The GSS program used to have three full time employees but due to staffing changes it was reduced to two. It is hard to maintain/improve the GSS program with the full-time instructors teaching at the current work load. Thus, the program needs a director and 2 full time instructors. Within the next couple years one of the full-time instructors is looking at retiring so it would be beneficial to hire another instructor so they can be up to speed when the senior instructor retires.

With a director and 2 full time instructors and the spread-out work load the faculty would have ample time to take care of the duties to maintain/improve/advance the Gunsmithing program. At the time that the gunsmithing program had a waitlist to get into the program and there were 600-700 summer students there were 3 fulltime faculty. With the help of another full-time faculty, we could increase enrollment and offer more classes that would in turn bring in more FTES.

The GSS program needs a secretary to help with the clerical duties that are necessary to be in compliance in the industry.

Professional Development

Provide a description and associated outcomes related to the program's target professional development participation over since the last program review. Discuss the current professional development/training need(s) of your program, and why this need(s) exists. If you have specific trainings you want to request, please include those details.

Since the last review we have been in the revitalization process. The only professional development that has been done is to update the program is the program staff are getting online training for the CNC machine so that we can include programing and machine use into the updated program after we finish the revitalization process. In the spring 2023 we hope to attend gun shows as well as the SHOT show to attend trainings and stay current with the industry.

Section 3: Infrastructure Planning

Facilities

- Describe and evaluate the Lassen Community College facilities available to the program.
- Describe and evaluate additional facilities utilized off-campus by the program
- Describe any facilities needs identified internal or external analysis
- Justify any proposed modifications or additions to existing facilities that would better serve the program planned for the program review cycle.

The classroom for the Gunsmithing Program is located in the Vocational-Technical building, room VT-104, along with a program office located in VT-110. The remainder of the Program is located in the GS building, which is immediately adjacent to the Vo-Tech building. The GS building includes

- Work benches, grinders, welders, saws, lathes, milling machines, caustic bluing equipment, sandblasting equipment, and a wide range of small tooling. The major equipment is outlined below: see appendix A

Evaluation of the facilities available to the Gunsmithing Department:

- The current facility is limited in space for machinery and equipment
- The current facility is limited in space for student activity and storage of student and program materials resulting in some safety concerns.
- The current facility has a realistic operational capacity of approximately 50 students, limited by the availability of machines/equipment in the machine shop
- The Child Development Center was constructed in close proximity to the facility, raising concerns
- Student Services in the Vo-Tech building is in close proximity to the gunsmithing facility
- VT-105, formerly a classroom available to the Gunsmithing Department, has become Counseling offices, forcing a make-shift classroom to be arranged in the Gunsmithing Shop
- VT-101, one of the class rooms currently used by the gunsmithing department, is being changed into offices for student services.

- The gunsmithing department has asked for more classrooms and we have been told that there is no room for more classrooms facilities has to make room for student services, so we will be losing another class room. At this time we will only have one class room available for our summer program 2023. In the past we have had 5 class rooms in use at one time.
- Availability of classroom space during the degree/certificate and NRA Summer Program keeps getting smaller.
- The former Facilities director has taken away what was used for the gunsmithing armory Vt-102. Forcing LCC to purchase gun safes and store them in classroom VT108. This cut down the size of the classroom and as a result have to cut down class size.
- Due to Covid-19 pandemic LCC made the campus i.e., dorms and gym, overflow for the hospital if need be. In turn the main electrical panel in the gunsmithing dept. machine shop has been upgraded and made so there could be generators hooked to the panel. With this the former facilities director built a room around the panel in the machine shop that makes more of our area unusable and cuts down the square footage of the shop. The former Facilities director also removed equipment out of the machine shop that we currently used to make room for this structure. This was done with no consideration to the gunsmithing program staff.
- LCC gunsmithing dept. had a fenced area on the east side of the machine shop. The fence and the area were removed including part of the lawn to repair a drainage line. The drainage line is still broken after 5years and the fence has not been replaced. We stored raw materials, oxygen and acetylene bottles and other supplies that didn't need to be inside in this area. The fenced area was locked and secure. Now we must store these items in the machine shop/lab area and they clutter the shop and is a safety concern. This area is also the first place all students go on campus to get to admissions and records. This is unsightly and unprofessional looking.
- Since the last review, and due to the program being revitalized, the program has received a 40'-shipping container for storage and at this time we are waiting to get power hooked up to it so we can move the equipment that is used once a year and clutters the shop into it.
- With getting the shipping container for storage we will be able to move the spare parts out of the storage room in the lab and the room will become a painting area for spraying firearm finishes. We have ordered a paint booth but have not received it at this time. We have also ordered two commercial ovens for curing the firearm finishes and also have not received them at this time.

Evaluation of the major equipment utilized by Gunsmithing Department shows some of the worn and outdated equipment has been replaced using grant moneys.

Equipment

- Describe and evaluate equipment and equipment support provided for instruction and instructional support

The classroom for the Gunsmithing Program is located in the Vocational-Technical building, room VT-104, along with a program office located in VT-110. The remainder of the Program is located in the GS building, which is immediately adjacent to the Vo-Tech building. The GS building includes

- Work benches, grinders, welders, saws, lathes, milling machines, caustic bluing equipment, sandblasting equipment, and a wide range of small tooling. The major equipment is outlined below:
- 19 Metal turning lathes
 - a. 3 lathes less than 5 years old
 - b. 7 lathes 5 to 10 years old

- c. 9 lathes unknown age (two are WWII vintage)
 - d. 1 lathes are non-operational
 - 6 Milling machines
 - a. 2 mills less than 5 years old
 - b. 1 CNC mill w/attachments, approx. 15 years old
 - 2 Welders, Tungsten Inert Gas (TIG)
 - a. Both approx. 15 years old
 - Dell Computer to Run CNC programs Less than 1 year old
 - a. Paton software
 - 14 Browning Gun safes, 2years old
 - 1 Finish curing oven, built by students
 - Savage Range systems snail trap, under 5 years old
- The majority of the worn and obsolete equipment has been replaced using grant moneys.

Due to a limited budget, the GSS program does not have any equipment maintenance/service agreements. The Gunsmithing program could use a maintenance/service program for the equipment. A maintenance/service program would extend the life of our equipment

Technology

- Describe and evaluate technology and technology support provided for instruction and instructional support.
- Justify any proposed modifications or additions to existing technology that would better serve the program planned for the next four years.

Since the last review the gunsmithing program has not received any new technology. The IT department has provided support that we have not received in the past. The Gunsmithing program would like to include laser engraving. Laser engraving has become an advancement in the industry not only for engraving but for removing broken taps and cutting material that cannot be done on conventional machine equipment.

Section Four: Program Planning

Progress update on previous action plans

Since the last review, the gunsmithing program has been in the revitalization process. The changes that are in progress right now are, the gunsmithing program has received the 40' shipping container that was approved in approximately 2007, with receiving the shipping container for storage the gunsmithing department will be able to make room for a spray booth within the shop. The spray booth and new ovens have been ordered but not received at the time this is written. At this time the shipping container does not have power to it there for we cannot start using the new equipment.

The plan at this time is, as soon as the chancellor's office approves the updated program we will start advertising and promoting the program. Lassen college administration has moneys set aside to advertise and promote.

Action Plan	Progress Detail	Outcomes
N/A		

Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

Complete SWOT analysis

Strengths	The only program in CA offering courses in this subject large LE following for armorer classes
Weaknesses	Motivating students following Covid-19 where individuals are not self-dependent No program director that is faculty Advertising
Opportunities	Community service classes Bring in more industry experts for wider knowledge base Bachelor's degree in gunsmithing
Threats	Changes in federal and state laws Political climate

Program Plan

Develop a program action plan based on the findings of the SWOT Analysis. The plan should specify should aligns with one or more College Goals. SLO maps may be utilized to help show the connection.

SWOT ; The Lassen College Gunsmithing program exists as a unique entity and is the only Gunsmithing not only in California but on the west coast. The Gunsmithing program has existed within Lassen College for 77 years. The Gunsmithing program trains law enforcement, military as well as the general and specialized gunsmith. The Gunsmithing program also offers extensive training for the hobbyist to the advanced gunsmith or armorer to learn or maintain their skill set. The current program has offered students that have a unique skill set that employers not only in the Gunsmithing industry look for.

The Gunsmithing program has seen that students are harder to motivate coming out of the Covid-19 pandemic. The Gunsmithing program is in desperate need of a director for the Gunsmithing program as well as the NRA summer program. This position must be a faculty position. There has been no advertising for the Gunsmithing program for many years. Now that the program is being revitalized there will be extensive advertising when the chancellor's office approves the new degrees and certificates. This will include online, print and attending gun and trade shows.

The Gunsmithing program could offer community service classes that would offer the student a class that they could take as many times as they want. These classes would not be subject to the states repeatability restrictions. With offering community service classes the Gunsmithing program would be able to bring in more industry experts that currently cannot pass the minimum qualification. There are people in the industry that have years of experience and are an expert but cannot pass the minimum qualification requirements. The Gunsmithing program could offer a bachelor's degree in Gunsmithing. This would offer the student a degree that is not offered anywhere else in the country. After the degree/certificate program get back on its feet we will look into writing some community service classes.

At this time the Gunsmithing program is complying with federal and state laws pertaining to having firearms on a college campus and next to a day care center. If the laws, federal and/or state change this could make it to where the Gunsmithing program would have to be moved from its current location and possibly off of campus to comply with the laws. The Gunsmithing program is looking at moving locations in the next 5 years. At this time we are looking at options for a new facility.

The program plan is as follows.

Recover from the revitalization process.

Start the degree/certificate program back up fall 2023

Keep advertising fall of 2023 for fall of 2024 and summer NRA courses

- How do the action plans align with the mission of the college?
- What strategic goals do the action plans support?
- What ISLOs do the action plans support?
- What specific evidence (e.g., SLOs, data) support the action plans?
- Based on the action plans what resources are needed?
- What are the expected outcomes of the action plans?
- What is the total cost of bringing the action plan to life?

Lassen Community
College Status of Curriculum

Action Plan	Supporting Evidence	Expected Outcome	Resource(s) to Achieve the Action Plan	Resource Category	Estimated Cost	Expense Type	Priority Ranking
Increase supply budget	Course Success rate	Increase student success	N/A	Equipment	\$15,000	annually	5
Increase equipment repair budget	Course success rate	Increase student success	N/A	Equipment	\$3000	annually	4
Establish equipment service agreements	Course success rate	Increase student success	N/A	Equipment	Unknown	Annually	3
Establish recruiting and advertising program	Increase enrollment	Increase enrollment	N/A	advertising	\$5000	Annually	2
AC in classrooms and lab	Increase enrollment	Increase student success	N/A	Facilities	unknown	One time	1

Lassen Community

Course Name	College Status of Curriculum		Course SLO mapping reviewed
	Curriculum Committee Review Completed	Curriculum Committee Review Not Completed	
GSS 50.01 Recoil Pad and Sling Swivel Installation	11/15/2022		02/16/2021
GSS 50.03 Open and Optical Sight Installation	11/15/2022		02/16/2021
GSS 51.01- Stock Inletting	11/15/2022		02/16/2021
GSS 51.03 Stock Shaping	11/15/2022		02/16/2021
GSS 51.05- Glass Bedding for Strength and Accuracy	11/15/2022		02/16/2021
GSS 51.06 -Wood Stock Finishing	11/15/2022		02/16/2021
GSS 52.01- Gunsmith Machining 1	11/15/2022		02/16/2021
GSS 52.02- Gunsmith Machining 2	11/15/2022		02/16/2021
GSS 52.03- Gunsmith Machining 3	11/15/2022		02/16/2021
GSS 52.04- Gunsmith Machining 4	11/15/2022		02/16/2021
GSS 52.05- Gunsmith Machining 5	11/15/2022		02/16/2021
GSS 52.06- Gunsmith Machining 6	11/15/2022		02/16/2021
GSS 52B Firearms Training	11/15/2022		02/16/2021
GSS 52BR Firearms Training Refresher	11/15/2022		02/16/2021
GSS 54.05 - Hardening & Tempering of Carbon Steels	11/15/2022		02/16/2021

Lassen Community
College Status of Curriculum

GSS 55.04- Stock and Refinish & Repair	11/15/2022		02/16/2021
GSS 56.01 - Headspace	11/15/2022		02/16/2021
GSS 56.03 - Bolt Action Barrel Fitting	11/15/2022		02/16/2021
GSS 56.04 - Barrel Contouring	11/15/2022		02/16/2021

GSS 57.01 Bolt Action Breeching & Headspace	11/15/2022		02/16/2021
GSS 57.02-Action Blueprinting	11/15/2022		02/16/2021
GSS 57.03 -Action & Bolt Modifications	11/15/2022	Lassen Community College Status of Curriculum	02/16/2021
GSS 57.06-Truing Exterior of Action	11/15/2022		02/16/2021
GSS 57.08 - Bottom Metal Modification	11/15/2022		02/16/2021
GSS 57.15 -Bolt Action Rifle Feeding	11/15/2022		02/16/2021
GSS 58.02 - Pressure Bedding & Pillar Bedding	11/15/2022		02/16/2021
GSS 59.02-Metal Prep. For Refinishing & Caustic Bluing	11/15/2022		02/16/2021
GSS 59.03 - Parkerizing	11/15/2022		02/16/2021
GSS 59.04 - Color Case Hardening	11/15/2022		02/16/2021
GSS 59.05 -Rust Bluing	11/15/2022		02/16/2021
GSS 59.07 - Niter Bluing & Heat Coloring	11/15/2022		02/16/2021
GSS 59.09-Alternative Metal Finishes	11/15/2022		02/16/2021
GSS 60.01 - DFR Recoil Operated Auto Shotguns	11/15/2022		02/16/2021
GSS 60.02 - DFR Gas Operated Auto Shotguns	11/15/2022		02/16/2021
GSS 60.04 - DFR Pump Shotguns	11/15/2022		02/16/2021
GSS 61.01 DFR Single Action Revolvers	11/15/2022		02/16/2021
GSS 61.02 - DFR Smith & Wesson Revolvers	11/15/2022		02/16/2021
GSS 61.03 - DFR Colt Revolvers	11/15/2022		02/16/2021
GSS 62.03 - Misfire Correction	11/15/2022		02/16/2021
GSS 62.04 - Correcting	11/15/2022		02/16/2021

Lassen Community College
Status of Curriculum Reviews

Oversize Firing Pin Holes			
GSS 63.01 - Single Triggers	11/15/2022		02/16/2021
GSS 63.02 -Ejectors	11/15/2022		02/16/2021
GSS 63.03 - Double Gun Locks	11/15/2022		02/16/2021
GSS 63.04-Double Gun Locking Systems	11/15/2022		02/16/2021
GSS 63.05 -Double Gun Hinge Pins & Headspace	11/15/2022		02/16/2021
GSS 64. 01- Composition Stock Fitting, Bedding & Finishing	11/15/2022		02/16/2021
GSS 66.01 -Non-Bolt Action Rifle Barrel Fitting	11/15/2022		02/16/2021
GSS 66.02 - Revolver Barrel Fitting and Ranging	11/15/2022		02/16/2021
GSS 66.03 - 22 Barrel Fitting	11/15/2022		02/16/2021
GSS 68.01 - DFR Locked Breech Single Action Auto Pistols	11/15/2022		02/16/2021
GSS 68.02 - DFR Locked Breech Double Action Auto Pistols	11/15/2022		02/16/2021
GSS 68.03 - DFR Blowback Auto Pistols	11/15/2022		02/16/2021
GSS 69.01 -DFR Auto Rifles	11/15/2022		02/16/2021
GSS 69.02-DFR Pump Rifles	11/15/2022		02/16/2021
GSS 69.03 -DFR Lever Action Rifles	11/15/2022		02/16/2021
GSS 69.04 - Non-bolt Action Feeding	11/15/2022		02/16/2021
GSS 70 - Checkering	11/15/2022		02/16/2021
GSS 70.01 -DFR Triggers 1	11/15/2022		02/16/2021
GSS 70.02 - DFR Triggers 2	11/15/2022		02/16/2021

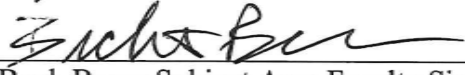
GSS 71 - Custom Rifle Seminar	11/15/2022		02/16/2021
GSS 71.01 - DFR .22 Auto	11/15/2022		02/16/2021
GSS 71.02-DFR Bolt Action .22's	11/15/2022		02/16/2021
GSS 71.03 -DFR Pump and Lever Actions .22'a	11/15/2022		02/16/2021
GSS 71.04 - DFR Marlin Model 39	11/15/2022		02/16/2021
GSS 72 - Fiberglass Stockmaking	11/15/2022		02/16/2021
GSS 72. 01- Metallic Cartridge Reloading	11/15/2022		02/16/2021
GSS 73.02 - Spring Making	11/15/2022		02/16/2021
GSS 75.02 - Firearm Laws and Regulations	11/15/2022		02/16/2021
GSS 77 - Accurizing MI-MIA Competition	11/15/2022		02/16/2021
GSS 78 - Design & Repair .22 Autopistals	11/15/2022		02/16/2021
GSS 79- Basic Correctional Armorer's School	11/15/2022		02/16/2021
GSS 82 - General Gunsmithing	11/15/2022		02/16/2021
GSS 83 - General Gunsmithing - Advanced	11/15/2022		02/16/2021
GSS 84-LEAS D & R Colt & Ruger Revolvers	11/15/2022		02/16/2021
GSS 85 - LEAS D & R Smith & Wesson Revolvers	11/15/2022		02/16/2021
GSS 87-LEAS D & R Double Action Autopistols 1	11/15/2022		02/16/2021
GSS 88 - LEAS D & R Double Action Autopistols 2	11/15/2022		02/16/2021
GSS 89-LEAS D & R Full Automatic Firearms	11/15/2022		02/16/2021

GSS 90 - Customizing the Colt-Type Autopistol, Basic	11/15/2022		02/16/2021
GSS 91 - Customizing the Colt-Type Autopistol, Advanced	11/15/2022		02/16/2021
GSS 93-LEAS D & R Counter Sniper Rifles	11/15/2022		02/16/2021
GSS 94 - Ballistics, Handloading & Testing	11/15/2022		02/16/2021
GSS 95-Law Enforcement Armorer School - Basic	11/15/2022		02/16/2021
GSS 98.02- Cowboy Action Shooting Long Guns	11/15/2022		02/16/2021
GSS 98.03- Cowboy Action Shooting Short Guns	11/15/2022		02/16/2021
GSS 98.04 Advanced Knife Making	11/15/2022		02/16/2021
GSS 98.05 Design, Function and Repair Smith & Wesson Revolver	11/15/2022		02/16/2021
GSS 98.06 - DFR Patrol Rifles	11/15/2022		02/16/2021
GSS 98.08 - Custom Built 1911	11/15/2022		02/16/2021
GSS 98.09 - Color Case Hardening	11/15/2022		02/16/2021
GSS 98.12 Modern and Cowboy Action Belts and Holsters	11/15/2022		02/16/2021
GSS 98.13 - Metallurgy for Gunsmiths	11/15/2022		02/16/2021
GSS 98.21 - Hand Gun Special Projects	11/15/2022		02/16/2021
GSS 98.22 - Long Gun Special Projects	11/15/2022		02/16/2021
GSS 98.23 - Machine Shop Special Projects	11/15/2022		02/16/2021
GSS 98.24- Stockmaking Special Projects	11/15/2022		02/16/2021
GSS 112-Machine	11/15/2022		02/16/2021

Shop for Gunsmiths			
GSS 112B - Introduction to Knifemaking	11/15/2022		02/16/2021
GSS 114 - Basic Rifle Barreling	11/15/2022		02/16/2021
GSS 116- Stockmaking -Phase I	11/15/2022		02/16/2021
GSS 117-Gas Tungsten Arc Welding for Gunsmiths	11/15/2022		02/16/2021
GSS 119 - Advanced Rifle Barreling	11/15/2022		02/16/2021
GSS 120- Stockmaking - Phase 2	11/15/2022		02/16/2021
GSS 120B - Stock Refinish and Repair/Recoil Pad Installation	11/15/2022		02/16/2021
GSS 123 -Basic Hard Metal Engraving	11/15/2022		02/16/2021
GSS 124- Welding Fabrication for Gunsmiths	11/15/2022		02/16/2021
GSS 127 - Advanced Engraving	11/15/2022		02/16/2021
GSS 130 - Professional Engraving	11/15/2022		02/16/2021
GSS 133 - Scrimshaw	11/15/2022		02/16/2021
GSS 134 - Caustic Bluing	11/15/2022		02/16/2021
GSS 135 - Parkerizing	11/15/2022		02/16/2021
GSS 136- Cold Rust and Niter Bluing	11/15/2022		02/16/2021
GSS 143 -Custom Gunmaking- Muzzleloaders	11/15/2022		02/16/2021
GSS 147-LEAS Assembly and Tuning of Gas Operated Repeating Rifles	11/15/2022		02/16/2021
GSS 148- Advanced Correctional Armorer School	11/15/2022		02/16/2021

Degrees and Certificates			Program PSLO mapping reviewed
AS-General Gunsmithing	11/15/2022		03/02/2021
AS - Firearm Repair	11/15/2022		03/02/2021
CA-General Gunsmithing	11/15/2022		03/02/2021
CA-Firearms Repair	11/15/2022		03/02/2021
COA-Gunsmith Machinist and Metal Finishing	11/15/2022		03/02/2021
COA-Long Gun	11/15/2022		03/02/2021
COA-Pistolsmith Certificate of Accomplishment	11/15/2022		03/02/2021
COA-Riflesmith Certificate of Accomplishment	11/15/2022		03/02/2021


 John Martin Subject Area Faculty Signature


 Buck Bauer Subject Area Faculty Signature


 Tom Downing, Curriculum and Academic Standards Committee Chair Signature


 Mitchell Williams, Dean of Instructional Services

11/22/22 Date
 11/28/22 Date
 11/29/2022 Date
 12/1/2022 Date



**CTE Advisory Committee Minutes
Gunsmithing Program Advisory Committee
Meeting Date: November 3, 2022
Meeting Time: 1600
Meeting Location: ZOOM**

Committee Members/Invitees Present:

Buck Bauer, Lassen Community College, Full time Gunsmithing Instructor
Michell Williams, Lassen Community College, Dean of Instruction CTE programs
Fran Oberg, Lassen Community College, Executive Assistant, Academic Services
Jake Floyd, Lassen Community College, Part time Gunsmithing Instructor
Daniel Musante, Lassen Community College, Part time Gunsmithing Instructor
Thomas Downing, Lassen Community College, AJ/POST Director
Chad Lewis, Lassen Community College, Automotive Instructor, CTE Division Chair
Barb Baston, Lassen Community College, Counselor
Wesley Brians, Weatherby INC, Gunsmith

Committee Members/Invitees Absent:

John Martin, Lassen Community College, Full time Gunsmithing instructor
Garrett Taylor, Lassen Community College, Business Instructor
Peter Coelho, J&G Gunsmithing, Lead Gunsmith
Matthew Hawes, Matthew Hawes Precision Gunsmithing, Owner/Lead Gunsmith
Mike Lake, Nosler INC, Senior Manager, technical services
Kelley Merritt, Lassen Co. Sheriff Department, Armorer

1. CALL TO ORDER: 4:06pm

A. Introductions

All members present introduced themselves.

B. Approval on minutes from meeting September 29, 2021

Tabled until next meeting. Not all members had opportunity to review.

C. Approval of Agenda

ACTION: Motion by Jake Floyd to approve agenda. Second by Dan Musante. All in favor, the motion passed.

II. REPORT ITEMS

A. Program Update

a. Revitalization

The program is going through Revitalization because of low enrollment. We did not admit new first year students this fall. Second year students are finishing out the program with the 1-week per class format. A change in format will make it so students can complete the General Education (GE) classes needed for an Associate's Degree in two years.

1. Format

The format is being changed from 1-week classes to semester-long classes.

2. Curriculum

Curriculum is being updated to the new semester-long classes.

3. Facilities

A new 40-foot shipping container has been purchased for storage. Maintenance is working on getting power to it. They're doing a good job. Once completed, the armory will be moved out of the current storage room and relocated to the shipping container. The storage room will be converted to a spray booth and oven area.

Guns are being updated including inertia-operated shotguns, striker-fire handguns, Glock & Sig-Sauer, AR/M16 style platform as designed and the new piston driven system. Basic CNC will be added to the machine shop classes. No platforms have been dropped, just adding new ones.

PROGRAM UPDATE DISCUSSION:

With the new semester-long format, students will not be in the shop as long so they have time to take GE classes. Instead of the week-long DFR handgun classes, all revolvers will be in one semester-long class, with one or two hours of lecture per week and 3 hours of lab time. Make up labs will be offered for students needing more time. Details are still being ironed out.

What happens if someone doesn't pass a section? The same policies are in place to re-take the class. If the current 2nd year students don't pass a class, they can sign up for a lab class and challenge the class to show knowledge.

There are 4 or 5 classes per semester. As listed in the program outline, there are 9 classes for the Fall, 4 classes for 1st year and 5 classes for 2nd year.

What happens if they fail a pre-requisite class? They re-take or challenge the course, then they can go on to the next class. They have the full semester to finish the check sheets, not just one week. In order to keep students on track, a certain amount of skills on the check sheets will be required to be completed by mid-semester.

None of the Chancellor's Office rules have changed. We have to show that students can complete a degree in 2 years. It's going to be a heavy lift, but we need to show the student has the opportunity to complete in 2 years. If we do not show this, college financial aid, etc. are at risk.

How many students will be allowed in the program? The cap is 44 students total – 22 1st year and 22 2nd year. If a student needs to re-take a class, the instructor will have leeway to add more.

The semester-long format may help some students. They don't have to cram it in to one week. If they take a bit longer to pick it up, they have leeway. That might help the success rate.

Lecture and lab hours have been cut back. Hopefully students will be ambitious and get the lab work done right after the lecture and not procrastinate.

Any comments on the new add-on guns? Wes Brians stated it's good to add inertia-operated shotguns. They have them at Weatherby. Wes may be able to get the company to donate some. He'll see what he can do.

How do Adjuncts fit into the new program? We still need them. The program won't work with just the two full-time instructors. We rely heavily on Adjuncts as Subject Matter Experts. We need to calculate workloads to find exact hours. Still ironing out scheduling so we can bring adjuncts in for two or three weeks at a time. LCC wants to make it beneficial for our Adjuncts. We'd hate to lose Adjuncts over possible reduced workload.

For facility updates, the armory is being moved to the container. The old armory area will be converted to a paint booth and oven. The inside of the shop will be re-painted over winter break. The lighting situation is being addressed. One bank of lights was switched out to LED as a trial. That change seems to have solved the lighting problem, so all lights will be switched to LED.

The container has a ramp, roll-up door, cement slab, new drainage, and a cement sidewalk that's under an overhang so students will be protected when going from the classroom to the container.

Michell William stated that long range plans – at least 5 years out – the gunshop will be moved to different location on campus.

IT is being updated. Updates to the CNC machine, technology and the Elmo in the classroom. We will be

putting another Elmo in the lab with a larger screen.

What about AC? Not in the short term. We purchased bigger fans for the work spaces and are doing the best we can right now. Air conditioning in classrooms is a campus-wide issue. Our new facilities manager is working with the Chancellor's Office to get us funding for upgrades. Ovens for color case hardening, etc. are being moved outside so they won't heat up the shop. The Cerakote oven will stay inside with the new paint booth.

B. Activation of new program

We cannot advertise our new program until it has been approved by the Chancellor's Office.

Are the Course Outlines of Record fluid documents? Changes can be made, but they have to go through the process. Substantive changes must be approved in the fall for implementation the following fall.

ACTION: Motion made by Jake Floyd to approve the new curriculum and degree plan for the program (courses, associate's degree and two certificates of achievement). Second by Wes Brians. All in favor, the motion passed.

C. Deactivation of current program

The current program will remain in effect through May 2023 to allow all current second year students to complete the program.

ACTION: Motion made by Wes Brians to deactivate the current curriculum and degree plan for the program after May 2023. Second by Dan Musante. All in favor, the motion passed.

III. DISCUSSION ITEMS

Advertising

We need to get the word out about our new program. Members were asked to brainstorm ideas for advertising and marketing.

Member Mike Lake was unable to attend the meeting, but emailed his suggestions: High Schools, Job Fairs or any place Military Recruiters attend, Rifleman magazine, Fish & Game programs, youth programs.

Jake Floyd has contacts at the Marine Corps Combat Center at 29 Palms. They do all education centers for Military installations. Michell Williams asked Jake to forward any contacts or contact info. Jake can get west coast contacts to Buck. Would getting east coast contacts be effective? Yes, we can at least mail them flyers.

Mike Lake met John Martin at a gun show. We haven't been to shows recently and gun shows have been impacted by Covid restrictions. Our plan is to return to gun shows as soon as we get Chancellor's Office approval for the program. Michell Williams extended an invitation to Adjuncts to help man the LCC booth at gun shows. There are usually funds available to pay you for your time. Please contact Michell if you're interested.

V. ADJOURNMENT

Michell Williams thanked everyone for their support of the program.

ACTION: Motion made by Dan Musante to adjourn the meeting. Second by Jake Floyd. All in favor, the meeting was adjourned at 5:00pm.

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LABOR MARKET ANALYSIS

North/Far North Center of Excellence

MAY 2022

FOR PROGRAM RECOMMENDATION

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If, for any reason, this document is not accessible or if you have specific needs for readability, please contact us, and we will do our utmost to accommodate you with a modified version. To make a request, contact Ebony J. Benzing by phone at (916) 563-3215 or by email at Ebony.Benzing@losrios.edu.

SUMMARY

The North/Far North of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled career pathways in the North/Far North region. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations - jobs that typically require education beyond a high school diploma but less than a Bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this type of analysis due to the lessened barriers for entry-level work, such as no formal education and on-the-job training requirements.

Key findings include:

- The traditional labor market information provided represents a broad range of jobs beyond the scope of Gunsmithing.
- Analysis of job postings yielded opportunities for employment under the traditional employer-worker model, suggesting that many gunsmiths are self-employed. At this point, there is very little to no labor market data about gunsmiths.
- Lassen conferred an average of 26 awards (certificates and associate degrees) in Gunsmithing programs over the last three academic years (2018-19 through 2020-21).

Recommendations include:

- The North/Far North Center of Excellence does not recommend creating new gunsmithing programs at this point due to limited labor market data.
- The North/Far North Center of Excellence recommends that Lassen Community College move forward with chaptering its existing gunsmithing program at the Chancellor's Office.

INTRODUCTION

The North/Far North Center of Excellence (COE) was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- Installation, Maintenance, and Repair Workers, All Other (49-9099)
- Assemblers and Fabricators, All Other (51-2099)
- Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic (51-4072)
- Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081)
- Metal Workers and Plastic Workers, All Other (51-4199)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are appropriate for inclusion in this report:

- Other Engineering and Related Industrial Technologies (0999.00)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Gunsmithing/Gunsmith (47.0402)

Description of occupations included in this report:

Installation, Maintenance, and Repair Workers, All Other (49-9099)	
Description:	All installation, maintenance, and repair workers not listed separately.
Sample of reported job titles:	N/A

Assemblers and Fabricators, All Other (51-2099)

Description:	All assemblers and fabricators not listed separately. Miscellaneous assemblers and fabricators.
Sample of reported job titles:	N/A

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Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic (51-4072)

Description:	Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.
Sample of reported job titles:	Core Machine Operator, Die Cast Technician, Diecast Machine Operator, Machine Operator, Mold Setter, Mold Technician, Molder, Process Technician, Production Technician

Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081)

Description:	Set up, operate, or tend more than one type of cutting or forming machine tool or robot.
Sample of reported job titles:	Cell Technician, CNC Machine Setter (Computer Numerically Controlled Machine Setter), Fabrication Set-Up Person, Injection Molding Technician, Machine Operator, Machine Technician, Mold Setter, Production Operator, Shear Operator, Tooling Set-Up Person

Metal Workers and Plastic Workers, All Other (51-4199)

Description:	All metal workers and plastic workers not listed separately.
Sample of reported job titles:	N/A

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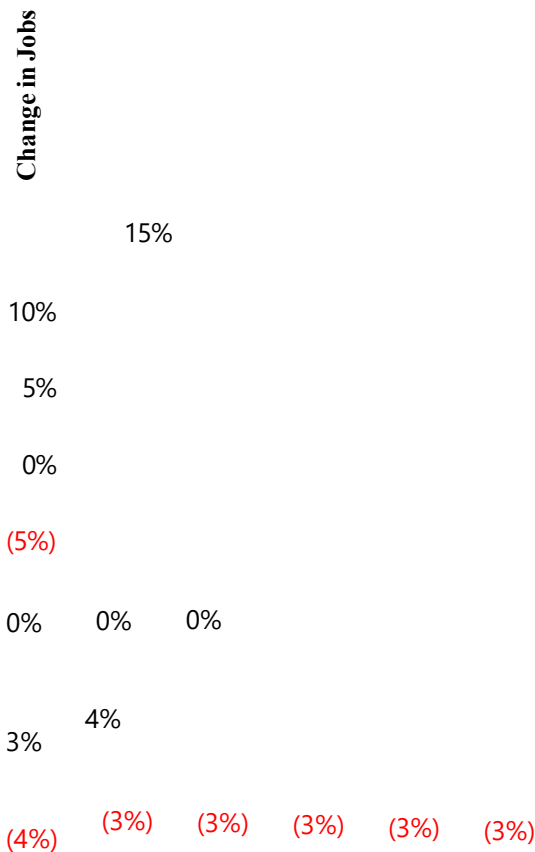
Exhibit 1 summarizes the five-year projected job growth for middle-skill and high-skill occupations in the North/Far North and California.

Exhibit 1. Employment and projected demand, 2020-2025

Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	2020-2025 Annual Openings
Installation, Maintenance, and Repair Workers, All Other	2,694	2,849	155	6%	318
Miscellaneous Assemblers and Fabricators	6,242	6,207	(34)	(1%)	680
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	321	363	42	13%	43
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	241	284	43	18%	35
Metal Workers and Plastic Workers, All Other	188	184	(4)	(2%)	20
North/Far North	9,686	9,887	201	2%	1,095
Installation, Maintenance, and Repair Workers, All Other	24,368	24,288	(80)	(0%)	2,589
Miscellaneous Assemblers and Fabricators	102,518	103,048	530	1%	12,164
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	7,669	7,582	(87)	(1%)	818
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	6,275	6,781	505	8%	786
Metal Workers and Plastic Workers, All Other	2,293	2,256	(38)	(2%)	243
California	143,123	143,955	831	1%	16,600

Exhibit 2 compares the percent change in jobs between 2015 through 2020 and the projected changes through 2025. The rate of change is indexed to the total number of jobs in 2015.

Exhibit 2. Changes in employment, 2015-2025



WAGES

North/Far North - Historical North/Far North - Projected California - Historical California - Projected

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupations to the North/Far North living wage for a single adult - \$12.29 per hour.¹

Exhibit 3. Comparison of wages by occupation, 2020

Installation, Maintenance, and Repair Workers, All Other

\$16.38

\$20.61

\$27.15

Miscellaneous Assemblers and Fabricators

Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

\$14.20

\$13.52

\$16.43 \$19.97

\$15.39 \$19.32

Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

\$14.84

\$21.69

\$26.82

Metal Workers and Plastic Workers, All Other

\$13.72

\$15.87 \$19.94

\$- \$5.00 \$10.00 \$15.00 \$20.00 \$25.00 \$30.00

Living Wage - Single Adult (\$12.29)

¹ Living wage is defined as the level of income a single adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. The 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

JOB POSTINGS

This section analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends.

The North/Far North COE identified 638 online job postings for the selected occupations across the 22-county North/Far North region. Job posting data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from May 1, 2021, to April 30, 2022.

Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupations.

Exhibit 4. Number of job postings by occupation

Occupation	Job Postings	Share of Job Postings
Installation, Maintenance, and Repair Workers, All Other	530	83%
Assemblers and Fabricators, All Other	95	15%
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	5	1%
Metal Workers and Plastic Workers, All Other	5	1%
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	3	0%
Total Job Postings	638	100%

Exhibit 5 shows the top 10 job titles with the most job postings and the share. All job postings included a job title. Most of the 150 job titles were for repair and service technicians, while none were for gunsmiths.

Exhibit 5. Top jobs titles

Job Title	Job Postings	Share of Job Postings
Service Technician	51	8%
Repair Technician	47	7%

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Job Title	Job Postings	Share of Job Postings
Maintenance Mechanic	44	7%
Pool Technician	40	6%
Auto Service Technician - Consistent Workflow	36	6%
Entry Level Service Technician	32	5%
Senior Service Technician	30	5%
Master Service Technician	29	5%

Advanced Service Technician	23	4%
Pallet Repairman	15	2%

Job Postings for Gunsmiths

To identify real-time LMI for gunsmiths, the North/Far North COE conducted a job posting search for gunsmiths utilizing job titles and skills in the 22-county region of the North/Far North. Exhibit 6 summarizes the job titles and skills used in the job posting search.

The North/Far North COE identified 53 online job postings related to Gunsmithing in the North/Far North region posted within the last three years (January 1, 2019 - April 30, 2022). All identified job postings came from the job title search; a skills search resulted in 0 job postings.

Exhibit 6. Job title and skill search terms for Gunsmiths in NFN

Job Titles (n = 53)	Skills (n = 0)
Gunsmith	Gunsmith
Gun smith	Firearm repair
Armorer	Firearm maintenance
Gun*	Weapon(s) repair
	Weapon(s) maintenance

* Note: Using the job title search term "Gun" resulted in 52 of the 53 job postings. However, most of these job postings were for jobs involving the sale/resale of firearms and related accessories (i.e., ammunition and safes) in retail shops (i.e., Bass Pro, Cabela's, Liberty Safes, etc.). Only one of the 53 job titles was explicitly for a gunsmith.

EDUCATION AND TRAINING

The U.S. Census Bureau and Bureau of Labor Statistics collected data on education achieved by workers employed in occupations. Exhibit 11 shows the national-level educational attainment of the current workforce in the selected occupations.

Exhibit 11. National worker educational attainment for selected occupations, 2019

Installation,

Miscellaneous

Molding, Coremaking, Multiple Machine Tool

Metal Workers and

Maintenance, and Repair Workers, All Other

Assemblers and Fabricators

and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

Setters, Operators, and Tenders, Metal and Plastic

Plastic Workers, All Other

High school or less

Some college

Associates

Bachelor's

Master's or Doctoral

The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work ~~experience in a related occupation, and typical on-the-job training to each occupation for which the BLS~~

publishes projections data. Exhibit 12 shows the skill level and entry-level job requirements for the selected occupations.

Exhibit 12. Typical education, work experience, and on-the-job training requirements

Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent	None	Long-term on-the-job training
Miscellaneous Assemblers and Fabricators	High school diploma or equivalent	None	Moderate-term on-the-job training
Molding, Coremaking, and Casting	High school diploma	None	Moderate-term on-

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Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Machine Setters, Operators, and Tenders, Metal and Plastic	or equivalent		the-job training
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	None	Moderate-term on-the-job training
Metal Workers and Plastic Workers, All Other	High school diploma or equivalent	None	Moderate-term on-the-job training

Certifications and Licensing

Gunsmithing is a federally licensed occupation. Individuals looking to sell and service firearms must hold a Federal Firearms License (FFL) from the Bureau of Alcohol, Tobacco, and Firearms (ATF).² Gunsmiths in California must also complete additional background checks and certifications through the State of California Department of Justice (DOJ) Bureau of Firearms.

EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 13 shows the TOP and CIP codes for educational programs related to the selected occupations.

Exhibit 13. TOP and CIP codes for training programs related to the selected occupations

TOP Programs and Codes	Aligned CIP Programs and Codes
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Other Engineering and Related Industrial Technologies (0999.00)

Gunsmithing/Gunsmith (47.0402)

Gunsmithing Programs

Exhibit 14 lists current Gunsmithing programs available. Lassen Community College's Gunsmithing programs are the oldest (established in 1945) programs in the United States and the only NRA-approved gunsmithing programs offered in California.³

² Sourced from: <https://www.atf.gov/qa-category/gunsmiths?destination=qa-category/gunsmiths> on May 25, 2022.

³ Sourced from: <http://www.lassencollege.edu/academics/programs/Pages/Program-Costs.aspx> and <https://gunsmithing.nra.org/find-a-school/> on May 24, 2022.

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Exhibit 14. Lassen's Gunsmithing Programs (as of May 24, 2022)

TOP Code	Program Title	Award Offered
Other Engineering and Related Industrial Technologies (0999.00)	General Gunsmithing	Associate in Science
	General Gunsmithing	Certificate of Achievement
	Firearms Repairs	Certificate of Achievement
	Long Gun	Certificate of Accomplishment
	Pistolsmith	Certificate of Accomplishment
	Riflesmith	Certificate of Accomplishment
	Gunsmith Machinist/Metal Finish	Certificate of Accomplishment

Community College Supply

Exhibits 15 and 16 compare the average number of certificates and degrees conferred in selected community college programs over the last three academic years.

Exhibit 15. Annual average community college awards by program, 2018-19 through 2020-21

Program - TOP Code	College	Annual Awards 2018-19	Annual Awards 2019-20	Annual Awards 2020-21	3-Yr Annual Awards Average
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Other Engineering and Related Industrial Technologies (0999.00)	Lassen	38	8	32	26
	Grand Total	38	8	32	26

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Exhibit 16. Annual average community college awards by type, 2018-19 through 2020-21



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FINDINGS

- This report focuses on Gunsmithing in the North/Far North region. A gunsmith is a person who repairs, modifies, designs or builds firearms or guns.⁴ Gunsmiths may also sell firearms.
- Five occupations were selected for inclusion in this report, including Installation, Maintenance, and Repair Workers, All Other (49-9099), Assemblers and Fabricators, All Other (51-2099), Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic (51-4072), Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081), and Metal Workers and Plastic Workers, All Other (51-4199).
- Assessing labor market demand for Gunsmithing jobs is an inherently difficult task. There is no singular occupational code that aligns with the gunsmith job. Five occupations were selected for this report to approximate the size of the labor market. However, many other jobs exist within these occupations. As a result, the traditional labor market information provided represents a broad range of jobs beyond the scope of Gunsmithing.
- Analysis of job postings yielded opportunities for employment under the traditional employer-worker model, suggesting that many gunsmiths are self-employed. At this point, there is very little to no labor market data about gunsmiths.
- Lassen Community College's Gunsmithing programs are the oldest (established in 1945) programs in the United States and the only NRA-approved Gunsmithing programs offered in California. Lassen conferred an average of 26 awards (certificates and associate degrees) in Gunsmithing programs over the last three academic years (2018-19 through 2020-21).

⁴ Sourced from <https://www.atf.gov/firearms/docs/ruling/2015-1-manufacturing-and-gunsmithing> on May 24, 2022.

RECOMMENDATIONS

- There isn't enough data to conclude whether or not Lassen's Gunsmithing program is filling an unmet labor market need, and occupational demand data for gunsmiths is extremely limited.
- However, Lassen's Gunsmithing programs are unique, and despite a COVID-related drop in awards during the 2019-2020 academic year, interest in the program remains strong.
- The North/Far North Center of Excellence does not recommend creating new gunsmithing programs at this point due to limited labor market data.
- The North/Far North Center of Excellence recommends that Lassen Community College move forward with chaptering its existing gunsmithing program at the Chancellor's Office.

APPENDIX A. METHODOLOGY AND SOURCES

This report identified Occupations using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O*Net OnLine. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

Cal-PASS Plus LaunchBoard. California Community Colleges Chancellor's Office.

<https://www.calpassplus.org/LaunchBoard/Home.aspx>.

Emsi 2021.4; QCEW Employees, Non-QCEW Employees, and Self-Employed.

<https://www.economicmodeling.com/>. EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors).

Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017.

Bureau of Labor Statistics. <https://www.bls.gov/emp/tables/educational-attainment.htm#>.

Integrated Postsecondary Education Data System (IPEDS). National Center for Education Statistics. U.S. Department of Education. <https://nces.ed.gov/ipeds/>.

"Labor Insight Real-Time Labor Market Information Tool." Burning Glass Technologies.
<http://www.burning-glass.com>.

Labor Market Information Division. California Employment Development Department.
<https://labormarketinfo.edd.ca.gov/>.

Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office.
<https://datamart.cccco.edu/>.

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<https://www.bls.gov/oes/home.htm>.

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Self-Sufficiency Standard Tool for California. The University of Washington.
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"Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6th Edition.
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"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. November 2015 Edition.
<http://coecc.net/>

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COVID-19 Statement: This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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